AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A thin film analysis system for analyzing a test sample, the test sample comprising a thin film formed on a substrate and a contaminant layer formed on the thin film, the thin film analysis system comprising:

an energy beam source for directing an energy beam at the contaminant layer during a localized cleaning operation, the energy beam being configured to heat only a small area of the contaminant layer until the small area is vaporized, thereby creating an opening in the contaminant layer; and

a thin film analysis module for performing at least one of single wavelength ellipsometry (SWE), spectroscopic ellipsometry (SE), reflectometry, grazing incidence x-ray reflectometry (GXR), x-ray fluorescence (XRF), electron microprobe analysis (EMP), non-contact-based electrical analysis, and contact-based electrical analysis on the thin film through the opening in the contaminant layer.

2-7. (Cancelled)

8. (Original) The thin film analysis system of Claim 1, wherein the energy beam source comprises a pulsed laser.

9. (Original) The thin film analysis system of Claim 8, wherein the pulsed laser comprises a Q-switched laser.

10. (Original) The thin film analysis system of Claim 9, wherein the Q-switched laser comprises a yttrium aluminum garnet (YAG) laser.

11. (Original): The thin film analysis system of Claim 10, wherein the YAG laser operates at a wavelength of approximately 532nm.

12. (Original) The thin film analysis system of Claim 10, wherein the YAG laser operates at a wavelength of approximately 355nm.

13. (Original) The thin film analysis system of Claim 8, wherein the pulsed laser comprises a pulsed diode laser.

14. (Original) The thin film analysis system of Claim 8, wherein the pulsed laser comprises an alexandrite laser.

15. (Original) The thin film analysis system of Claim 1, wherein the energy beam source comprises a continuous laser modulated to produce a pulse.

16. (Original) The thin film analysis system of Claim 1, wherein the energy beam source comprises a laser having a pulse energy between approximately 5 to 100 μJoules.

17. (Original) The thin film analysis system of Claim 1, wherein the energy beam source comprises an optical fiber for transmitting the laser beam from an energy beam generator to the portion of the contaminant layer.

18. (Original) The thin film analysis system of Claim 1, wherein the energy beam source comprises a flashlamp.

19. (Previously Presented) The thin film analysis system of Claim 1, wherein the opening in the contaminant layer exposes a non-functional region of the test sample.

20. (Previously Presented) The thin film analysis system of Claim 1, wherein the opening in the contaminant layer comprises a length and a width, wherein the length and the width are both approximately 20μm.

21. (Previously Presented) The thin film analysis system of Claim 1, wherein the thin film analysis module is configured to direct a probe beam at the test sample through the opening in the contaminant layer during the measurement operation, wherein the probe beam is focused on a first location on the test sample and the energy beam is focused on a second location on the test sample, the first location and the second location being substantially the same.

22-23. (Cancelled)

24. (Previously Presented) The thin film analysis system of Claim 1, wherein the thin film analysis module is configured to apply a probe structure to the thin film through the opening in the contaminant layer during the measurement operation, wherein the probe structure is aimed at a first location on the test sample and the energy beam is focused on a second location on the test sample, the first location and the second location being substantially the same.

25-26. (Cancelled)

27. (Currently Amended) A method for analyzing a test sample, wherein a contaminant layer covers a thin film of the test sample, the method comprising:

placing the test sample on a stage;

during a localized cleaning operation, directing an energy beam at a first location on the contaminant layer while the test sample is on the stage, the energy beam heating only a small area of the contaminant layer until the small area is vaporized, thereby removing a first portion of the contaminant layer to create an opening in the contaminant layer to expose a first analysis area of the thin film; ~~and~~

performing at least one of single wavelength ellipsometry (SWE), spectroscopic ellipsometry (SE), reflectometry, grazing incidence x-ray reflectometry (GXR), x-ray fluorescence (XRF), electron microprobe analysis (EMP), non-contact-based electrical analysis, and contact-based electrical analysis on the thin film at the first analysis area through the opening in the contaminant layer while the test sample is on the stage; and

generating an analysis output regarding the thin film.

28-32. (Cancelled)

33. (Original) The method of Claim 27, wherein directing the energy beam comprises applying at least one pulse from a pulsed laser to the first location on the contaminant layer.

34. (Original) The method of Claim 33, wherein the pulsed laser comprises a Q-switched yttrium aluminum garnet (YAG) laser.

35. (Original) The method of Claim 27, wherein the first analysis area comprises a non-functional region of the test sample.

36. (Previously Presented) The method of Claim 27, wherein the opening in the contaminant layer comprises a length and a width, wherein the length and the width are both approximately 20μm.

37. (Previously Presented) The method of Claim 27, wherein the localized cleaning operation further comprises:

directing the energy beam at a second location on the contaminant layer, the energy beam heating only a second small area of the contaminant layer until the second small area is vaporized, thereby removing a second portion of the contaminant layer to create a second opening in the contaminant layer to expose a second analysis area of the thin film ; and

performing at least one of single wavelength ellipsometry (SWE), spectroscopic ellipsometry (SE), reflectometry, grazing incidence x-ray reflectometry (GXR), x-ray fluorescence (XRF), electron microprobe analysis (EMP), non-contact-based electrical analysis, and contact-based electrical analysis on the thin film at the second analysis area through the second opening in the contaminant layer.

38-40. (Cancelled)

41. (Previously Presented) A thin film analysis system for analyzing a test sample, the test sample comprising a thin film formed on a substrate and a contaminant layer formed on the thin film, the thin film analysis system comprising:

means for directing an energy beam at the contaminant layer during a localized cleaning operation, the energy beam heating only a small area of the contaminant layer until the small area is vaporized, thereby removing a portion of the contaminant layer to create an opening in the contaminant layer to expose an analysis area on the thin film; and

means for performing at least one of single wavelength ellipsometry (SWE), spectroscopic ellipsometry (SE), reflectometry, grazing incidence x-ray reflectometry (GXR), x-ray fluorescence (XRF), electron microprobe analysis (EMP), non-contact-based electrical analysis, and contact-based electrical analysis on the thin film at the analysis area through the opening in the contaminant layer.

42. (Cancelled)

43. (Original) The thin film analysis system of Claim 41, wherein the means for directing the energy beam comprises a Q-switched yttrium aluminum garnet (YAG) laser.

44. (Original) The thin film analysis system of Claim 41, wherein the means for performing a measurement operation comprises means for directing a probe beam at the analysis area during the measurement operation, wherein the probe beam is focused on a first location on the test sample and the energy beam is focused on a second location on the test sample, the first location and the second location being substantially the same.

45-46. (Cancelled)

47. (Original) The thin film analysis system of Claim 41, wherein the means for performing a measurement operation comprises means for applying a probe structure to the analysis area during the measurement operation, wherein the probe structure is aimed at a first location on the test sample and the energy beam is focused on a second location on the test sample, the first location and the second location being substantially the same.

48-50. (Cancelled)

51. (Currently Amended) A thin film analysis system for analyzing a test sample, the test sample comprising a thin film formed on a substrate and a contaminant layer formed on the thin film, the thin film analysis system comprising:

an energy beam source for directing an energy beam at the contaminant layer during a localized cleaning operation, the energy beam being configured to heat only a small area of the contaminant layer until the small area is vaporized, thereby remove a portion of the contaminant layer to expose an analysis area on the thin film; and

a thin film analysis module for measuring the thin film at the analysis area, wherein the thin film analysis module comprises a contact-based electrical analysis system.

52. (Currently Amended) A method for analyzing a test sample, wherein a contaminant layer covers a thin film of the test sample, the method comprising:

placing the test sample on a stage;

during a localized cleaning operation, directing an energy beam at a first location on the contaminant layer while the test sample is on the stage, the energy beam heating only a small

area of the contaminant layer until the small area is vaporized, thereby removing a first portion of the contaminant layer to expose a first analysis area of the thin film; ~~and~~

measuring the thin film at the first analysis area while the test sample is on the stage, wherein measuring the thin film comprises performing a contact-based electrical analysis; and

generating an analysis output regarding the thin film.